



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,705	10/17/2003	Yuuji Sawanaga	243643US-2TTC	8805
22850	7590	03/11/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER GILLIGAN, CHRISTOPHER L	
			ART UNIT 3626	PAPER NUMBER
			NOTIFICATION DATE 03/11/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/686,705	Applicant(s) SAWANAGA ET AL.	
	Examiner C. Luke Gilligan	Art Unit 3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 39-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/14/07 has been entered.

Response to Amendment

2. In the amendment filed 9/19/07, entered with the filing of the Request for Continued Examination on 12/14/07, the following has occurred: claims 31, 35, 37, and 38 have been amended. Now, claims 1-38 are presented for examination with claims 39-48 withdrawn from consideration.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8-, 11-18, 23-30, 33-34, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al., U.S. Patent No. 5,786,994 in view of Applicant's Background of the Invention.

Art Unit: 3626

(A) As per claims 1-2, Friz discloses a performance monitoring system for a laser medical imager in a medical facility connected to a performance monitoring system (46) (Abstract; col. 11 lines 44-65) comprising:

(a) a performance monitoring system for acquiring data representative of performance conditions, including errors, for the laser imager (Fig. 3, col. 3 lines 33-45, col. 8 line 61 to col. 9 line 11, col. 11 lines 44-65, col. 21 lines 33-49);

(b) memory in the performance monitoring system for storing the data representative of performance conditions for the laser imager (Fig. 3, col. 11 line 44 to col. 12 line 21);

(c) system (46) for logging the frequency of errors (col. 15 lines 34-61); and

(d-e) system (46) for comparing the frequency of each type of error to a threshold, wherein if the frequency of a particular error exceeds the threshold, system (46) recognizes a potential oncoming fault condition and automatically initiates an order for a service technician to visit the location associated with the particular laser imager and visually displaying a report on a panel of the errors for a laser imager user (col. 12 lines 13-21; col. 15 lines 34-61).

Friz further discloses the performance monitoring system connecting to laser imagers over public telephone lines (col. 11 lines 20-44), a second reception unit connected to the network configured to receive a reference request for the expectancy from a requester; and a providing unit connected to the network configured to allow the requester to refer to information of the expectancy based on the received reference request (see col. 12 lines 16-21), and an informing unit configured to issue a notice to the medical facility through the network according to the value of the expectancy (see col. 12, lines 13-21; col. 15, lines 34-61).

Friz does not expressly disclose a prediction unit configured to calculate an expectancy of the parameter data to be received in the future based on the stored parameter data. Fritz

Art Unit: 3626

suggests that the system anticipates conditions that could render a laser imager unusable (col. 15 lines 34-61).

However, Applicant's Background of the Invention admits that this is well known in the art. See Applicant's specification, lines 8-11, "Still further, it is also known, in a general maintenance field, that a future expectancy is predicted based on measured values and an advance response is performed according to a comparison between the future expectancy and a predetermined reference value."

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Applicant's Background of the Invention within the system of Friz with the motivation of enabling a greater degree of anticipation of conditions that could render the laser imager unusable and proactively initiating a service call (Friz; col. 15 lines 54-61).

(B) As per claim 3, Friz discloses comparing the number of errors to a threshold (col. 15 lines 46-60). For the teaching of "the expectancy," it is noted that Applicant teaches this limitation in the Background of the Invention as being well known in the art. See the teaching of "an advance response is performed according to a comparison between the future expectancy and a predetermined reference value." See Applicant's specification, lines 8-11.

(C) As per claim 4, Friz discloses a threshold including an upper threshold level (reference line (82)) and lower threshold level (reference line 84)) of the parameter data (Fig. 4-6c, col. 4 lines 12-41, col. 10 lines 31-58, col. 12 lines 38-65, col. 13 line 64 to col. 14 line 26).

Art Unit: 3626

(D) As per claims 8-9, Friz discloses issuing notices to electronic mail addressees and issuing reports of errors when a parameter exceeds a threshold as discussed in the rejection of claim 1. Friz does not expressly disclose having multiple thresholds and changing addresses and the content of messages based on the thresholds. The Examiner respectfully submits that utilizing multiple thresholds (i.e., ranges) and messaging and changing content based on which range the data falls into are well known in the art of programming, and one skilled in the art would have been motivated to modify the teachings of Friz and Applicant's Background of the Invention to include these features in order to ensure that the proper service technician is notified (Friz; col. 15 lines 33-60).

(E) As per claims 11, Applicant's Background of the Invention discloses the prediction unit calculates the expectancy by statistically analyzing the stored parameter data (page 2, lines 3-11).

(F) As per claims 12-13, Friz discloses the parameter data representing a characteristic regarding a part of the medical equipment at each of a plurality of times and the parameter data is given for each of a plurality of parts of the medical equipment (Fig. 4- 9).

(G) As per claims 14-15 and 30, Friz discloses receiving and calculating data at a predetermined time (i.e., when the number of errors exceeds a threshold) (Fig. 4-9, col. 15 lines 33-60).

Art Unit: 3626

(H) As per claims 16-17, Friz discloses providing data and reports through a telecommunications network (col. 11 lines 45-65). See the rejection of claim 1 for a discussion of "the expectancy."

(I) As per claim 18, Friz discloses data being provided through electronic mail (col. 11 line 65 to col. 12 line 21). It is noted that electronic mail is provided through an Internet web site. See the rejection of claim 1 for a discussion of "the expectancy."

(J) Claim 23 repeats limitations addressed in claim 1, and therefore is rejected for the same reasons, and incorporated herein.

(K) As per claim 25, Friz discloses a technician generating a report and storing the report onsite in a file stored in a computer memory device (col. 10 lines 32-36), wherein the technician uses the reports to determine whether parameters fall within the applicable tolerances established for the references to assess image quality (col. 10 lines 32-58) (reads on "the requestor is a computer provided in a local maintenance provider which provides maintenance for the medical equipment").

(L) As per claim 26, Friz discloses a processor and laser imager in a medical facility (Fig. 3, col. 11 line 66 to col. 12 line 22).

(M) As per claim 27, Friz discloses a processor associated with the performance monitoring system (Fig. 3, col. 6 line 55 to col. 7 line 4, col. 11 line 66 to col. 12 line 22).

Art Unit: 3626

(N) As per claim 28, Friz discloses the informing unit issuing the notice allowing a reference of a graph which shows the stored parameter data and the expectancy with the first and second threshold levels in chronological order, wherein the stored parameter data and the expectancy are shown in a distinguishable manner (Fig. 4-6c, col. 4 lines 12-41, col. 10 lines 31-58, col. 11 line 66 to col. 12 line 21, col. 12 lines 38- 65, col. 13 line 64 to col. 14 line 26).

(O) Claim 29 repeats the limitations of claims 1 and 30, and is therefore rejected for the same reasons as those claims, and incorporated herein.

(P) Claim 33 repeats the limitations of claim 1, and therefore is rejected for the same reasons as claim 1.

(Q) Claims 34 repeats the limitations of claim 1, and therefore is rejected for the same reasons as those claims.

(R) As per claim 36, Friz discloses a laser imager and processor (reads on "medical facility apparatus") and a remote performance monitoring system (reads on "a medical equipment management apparatus") (see Figure 3). The remaining features of claim 36 have been discussed in claim 1, and are rejected for the same reasons given for claim 1.

(S) As per claim 37, Friz discloses a user receiving an email on a computer for receiving reports about errors occurring on a laser imager (Fig. 3, col. 11 line 66 to col. 12 line 21). The remaining features of claim 37 have been discussed in claims 1 and 36, and are rejected for the same reasons given for those claims.

5. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) and Applicant's Background of the Invention as applied claim 1, in view of Ridolfo (6,735,549).

(A) As per claim 5, Friz and Applicant's Background of the Invention fail to expressly disclose the predetermined threshold includes an upper threshold level and a bottom threshold level of the parameter data.

Ridolfo discloses component monitoring utilizing alarm/alert limits using thresholds, bands, and frequency filters (col. 5 lines 62-67). It is noted that using bands and thresholds are considered to be a form of "an upper threshold level and a bottom threshold level of the parameter data."

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Ridolfo within the system of Friz and Applicant's Background of the Invention with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; col. 5 lines 7- 14) and allowing data gathered on system components to be compared to expected regions of operation for the monitored components (Ridolfo;.col. 5 lines 63-67).

(B) As per claims 6-7, Friz discloses the informing unit issuing the notice allowing a reference of a graph which shows the stored parameter data and the expectancy with the first and second threshold levels in chronological order, wherein the stored parameter data and the expectancy are shown in a distinguishable manner (Fig. 4-6c, col. 4 lines 12-41, col. 10 lines 31-58, col. 11 line 66 to col. 12 line 21, col. 12 lines 38- 65, col. 13 line 64 to col. 14 line 26).

Art Unit: 3626

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) and Applicant's Background of the Invention as applied claim 1, in view of Kucek et al. (6,832,199).

(A) As per claim 10, Friz discloses messaging a service provider when the number of errors exceeds a threshold (col. 15 lines 33-61) (reads on "urgent"). Friz and Applicant's Background of the Invention fail to expressly disclose the first content representing a necessity of a maintenance service for the medical equipment without urgency. Kucek discloses sending non-urgent messages to a service center and field engineer (col. 3 lines 4-40). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Kucek within the system of Friz and Applicant's Background of the Invention with the motivation of distinguishing between urgent and non-urgent messages.

7. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz et al. (5,786,994) and Applicant's Background of the Invention as applied claim 1, in view of Babula et al. (6,381,557).

(A) As per claims 19-22, Friz and Applicant's Background of the Invention fail to expressly disclose a second storage unit configured to store maintenance contract information of the medical equipment, wherein the determination unit determines the level based on the stored maintenance contract information, and wherein the stored maintenance contract information is changed by an external terminal connected to the apparatus through the network.

Art Unit: 3626

Babula discloses a second storage unit configured to store maintenance contract information of the medical equipment, wherein the determination unit determines the level based on the stored maintenance contract information, and wherein the stored maintenance contract information is changed by an external terminal connected to the apparatus through the network (col. 2 lines 10-32, col. 13 line 54 to col. 14 line 37, col. • 21 line 48 to col. 23 line 24). Babula discloses transmitting a service request (col. 26 lines 11-23). As per the recitation of "the level," see the discussion in rejection of claim 1. As per the recitation of "the notice," see the discussion in rejection of claim 1.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Babula within the apparatus taught collectively by Friz and Applicant's Background of the Invention with the motivation of tracking licensing information between service providers and providers of medical diagnostic and imaging systems (Babula; col. 1 lines 27-40 and col. 2 lines 1-32).

8. Claims 31-32, 35, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ridolfo (6,735,549) in view of Applicant's Background of the Invention.

(A) As per claim 31, Ridolfo discloses a system comprising:

(a) a sensor system for monitoring a parameter indicative of an operating condition of at least one of the components in the system and an equipment failure and degradation module that receives an input from the sensor system (Fig. 2, col. 4 line 32 to col. 5 line 14, col. 12 lines 44-53);

Art Unit: 3626

(b) a digital computer for processing the measurements of the parameters (Fig. 2, col. 4 line 32 to col. 5 line 24, col. 12 lines 44-53) (It is respectfully submitted that a digital computer processing data must store the data in memory to process the data (Fig. 2));

(c) an equipment failure and degradation module of a digital computer to predict if any equipment is in danger of failing and to predict the remaining equipment life by analyzing the measurements and processing the collected data sets using trend analysis, wherein the trend analysis monitors changes in selected measurement parameters over time and predicts if the equipment is in danger of failing (col. 4 line 66 to col.5 line 29, col. 12 lines 40-63);

(d) a date-of-failure predictor module that determines and displays the date that a failure in the monitored component will likely occur prior to a probability, wherein the date-of-failure predictor module determines the date that a failure in the monitored component will likely occur for the specified probability from a failure distribution model for the monitored component developed by the equipment failure degradation module by performing a comparison to a probability of failure percentage, predetermined by a user, and existing within the module upon entry by the user (col. 4 line 66 to col. 5 line 29, col. 11 lines 8-25, col. 12 lines 40-63);

(e) a workstation for receiving a request for a date from the workstation (Fig. 2(10), col. 10 line 64 to col. 11 line 25, col. 12 lines 40-56); and

(f) a digital computer for calculating the date using a date-of-failure predictor module (Fig. 2(10), col. 10 line 64 to col. 11 line 25, col. 12 lines 40-56).

Ridolfo further discloses that each element is connected to a network (see column Fig. 2).

As per the recitation "medical equipment provided in a medical facility," Ridolfo does not expressly disclose this feature.

Art Unit: 3626

Applicant's Background of Invention discloses medical equipment provided in a medical facility (page 1, lines 19-26).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Applicant's Background of the Invention within the system of Ridolfo with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; col. 5 lines 7-14).

(B) As per claim 32, Ridolfo discloses issuing a notice to a workstation according to a date (Fig. 2, 10, col. 10 line 64 to col. 11 line 25).

(C) Claims 35 and 38 repeat the limitations of claims 31-32, and are therefore rejected for the same reasons given for those claims.

Response to Arguments

9. In the response filed 9/19/07, Applicants argue in substance that (1) Applicants' Background of the Invention cannot be relied upon as admitted prior art; and (2) Ridolfo does not teach determining a date 'hen the expectancy is substantially identical to a predetermined threshold existing in the determination unit.

(A) In response to Applicants' argument (1), the Examiner has previously responded to this argument in the Advisory Action, mailed 10/26/07, which is incorporated herein.

(B) In response to Applicants' argument (2), the Examiner considers the inputted percentage to be a form of the recited "threshold." This "threshold" is "predetermined" with respect to the

Art Unit: 3626

inputting user and is "existing in the determination unit" once inputted for the purpose of determining the date. Therefore, it is respectfully maintained that Ridolfo teaches this limitation as recited.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Luke Gilligan whose telephone number is (571)272-6770. The examiner can normally be reached on Monday-Friday 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

2/28/08

/C. Luke Gilligan/
Primary Examiner, Art Unit 3626